Claims

1. A method for displaying digital grey scale images at a desired tonal value on the screen of a display device, **characterized** in that, in the method, the operator pre-selects manually, for example on the basis of an image visible on a display screen, a grey scale level of his/her desire, the values consistent therewith
5   being stored in a memory associated with a display device, whereby, when the operator picks up a new image for examination, the memory is accessed to retrieve therefrom the information regarding a target grey scale level and relevant to the present operator, said information being used for automatically calculating an individual transformation function relevant to the present new image and the
10   image is automatically adjusted to the operator-specific target grey scale level.

2. A method as set forth in claim 1, **characterized** in that the image-specific transformation function is calculated in the method by first selecting a desired initial function to be parametered, the parameters of which are then optimized by means of an appropriate optimization algorithm for reaching an operator-specific
5   target grey scale level.

3. A method as set forth in claim 2, **characterized** in that the transformation function comprises an exponential function.

4. A method as set forth in claim 2, **characterized** in that the transformation function produces an S-graph.

5. A method as set forth in claim 2, **characterized** in that the transformation function produces a multi-segment graph.

6. A method for displaying digital grey scale images at a tonal value on the screen of a display device, **characterized** in that the image brightness is retained automatically by such a control of contrast that each value of contrast control

results in such an automated selection of the brightness value that as little as

5   possible of the image area is visible in black or white while as much as possible is

visible in various tones of grey.

7. A display device for displaying digital grey scale images at a desired tonal value

on the screen of a display device, **characterized** in that the device comprises

means (300) for manually adjusting the grey scale level of an image to a target

grey scale level desired by the operator, memory means (302) for storing therein

5   values relevant to the operator-specific target grey scale level, and computing

means (310) for calculating operator-specifically an individual image-specific

transformation function for each new image to be examined.